A Snapshot of Pancreatic Cancer

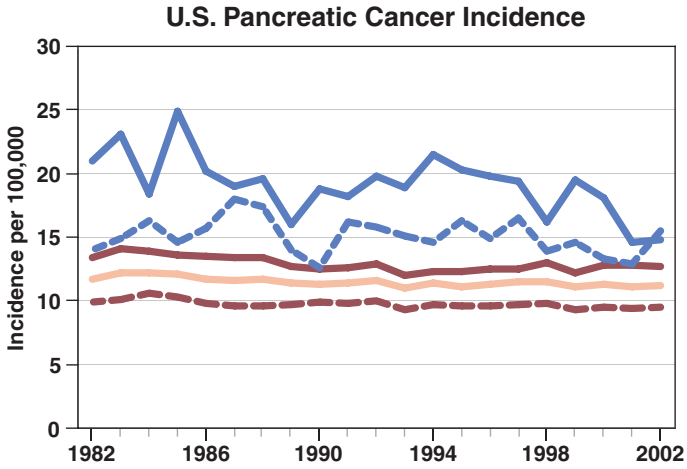
Incidence and Mortality Rate Trends

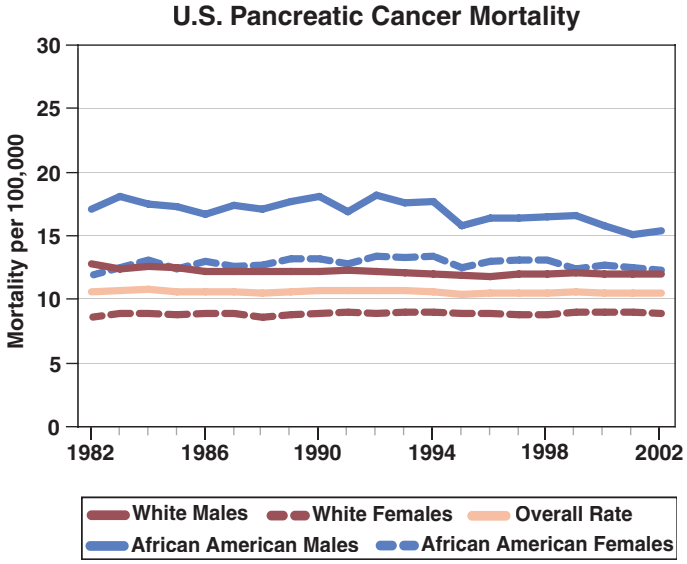
In the United States, pancreatic cancer is the fourth leading cause of cancer-related death in males and the fifth leading cause of cancer-related death in females. Because it is usually diagnosed at an advanced stage, the survival rate is poor compared to other types of cancer. Unfortunately, there has been little change in overall pancreatic cancer incidence or mortality rates throughout the past three decades.

Compared to other racial and ethnic groups, African Americans are the most vulnerable to pancreatic cancer, followed by Whites. It is estimated that approximately $1.5 billion* is spent in the United States each year on treatment of pancreatic cancer.

*In 2004 dollars, as reported in Brown ML, Riley GF, Schussler N, and Etzioni RD. Estimating health care costs related to cancer treatment from SEER-Medicare data. *Medical Care* 2002 Aug; 40 (8 Suppl): IV-104-17.

Source for incidence and mortality data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at: http://seer.cancer.gov/

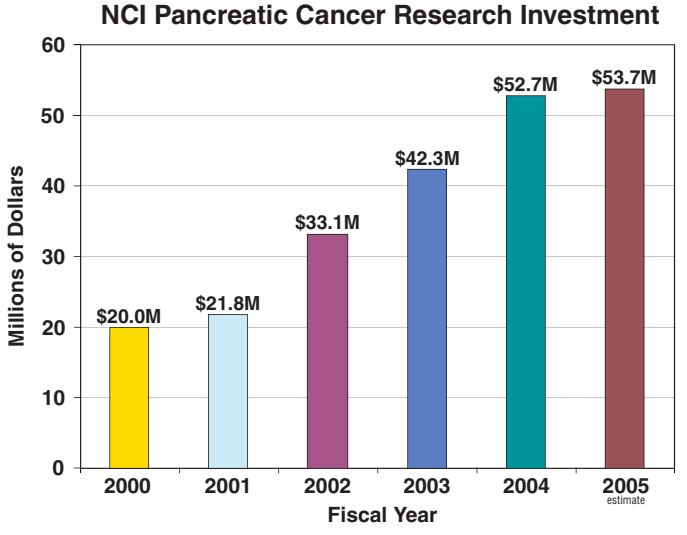




Trends in NCI Funding for Pancreatic Cancer Research

The National Cancer Institute's (NCI's) investment in pancreatic cancer research has increased from $20.0 million in fiscal year 2000 to an estimated $53.7 million in fiscal year 2005.

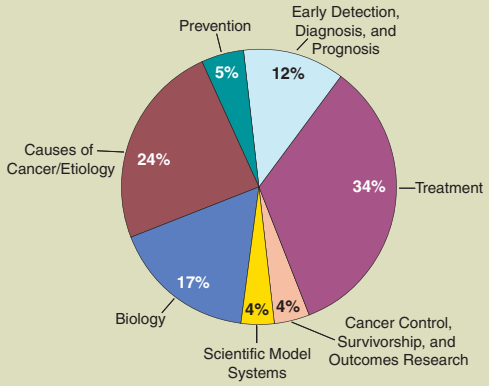
Source: NCI Financial Management Branch
http://www3.cancer.gov/admin/fmb



Examples of NCI Research Initiatives Relevant to Pancreatic Cancer

- Three pancreatic cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. http://spores.nci.nih.gov/current/pancreas/pancreas.html
- The **Early Detection Research Network (EDRN)** is dedicated to identifying and testing new biomarkers for detection and risk assessment. Studies related to pancreatic cancer are under way in the biomarkers development laboratories and the clinical and epidemiologic centers within EDRN. http://www3.cancer.gov/prevention/cbrg/edrn
- The **Mouse Models of Human Cancers Consortium** is developing techniques for studying the behavior of human pancreatic ductal carcinoma in a small animal model. http://emice.nci.nih.gov/mouse_models/organ_models/gastro_models
- The **Pancreatic Cancer Research Map**, a recently launched public website, allows the pancreatic cancer research community to search a comprehensive list of investigators and research projects relevant to pancreatic cancer. http://www.cancermap.org/pancreatic

NCI Pancreatic Cancer Research Portfolio



Percentage of Total Dollars by Scientific Area
Fiscal Year 2004

* Data on training grants are not included in this figure. A description of the relevant research projects can be found at the NCI Cancer Research Portfolio website at http://researchportfolio.cancer.gov.

- NCI's intramural **Gastrointestinal Malignancies Faculty** facilitates interactions among basic, epidemiological, translational, and clinical researchers. http://ccr.cancer.gov/faculties/faculty.asp?facid=156
- The **Pancreatic Cancer Home Page** provides up-to-date information on pancreatic cancer treatment, prevention, genetics, causes, screening, testing, and other topics. http://www.cancer.gov/pancreas

Selected Opportunities for Advancement of Pancreatic Cancer Research

- Identify genetic factors, environmental factors, and gene-environment interactions that contribute to pancreatic cancer development.
- Achieve a more complete understanding of the biology of the normal pancreas and the development of pancreatic adenocarcinoma and use this knowledge to improve prevention, early detection, and treatment interventions.
- Develop nationwide tissue and data repositories, molecular profiling resources, and bioinformatics tools for pancreatic cancer research. Use these resources to develop prevention and early detection interventions that are based on molecular features of pancreatic cancer.
- Establish models for the study of environmental factors, gene-environment interactions, chemoprevention, chemotherapy, radiation therapy, vaccines, and imaging to improve understanding of pancreatic cancer risk, prevention, diagnosis, and treatment.
- Identify and develop surveillance and diagnosis methods for early detection of pancreatic cancer and its precursors.
- Develop and establish sustained, expanded training and career development efforts in pancreatic cancer research and care to build a comprehensive, multidisciplinary research community focused on this disease.